

CLAIMS

1. A computerized classification system, comprising the following means:
 - means for organizing entities that have different types,
 - 5 – means for organizing some or all of said entities in a tree, with parent-child relationships, so that said entities correspond to the nodes of said tree, where it is not necessary that a graphical representation of said tree exists,
 - means for managing, at least, category-entities and criterion-entities, and optionally also instance-entities,
 - 10 wherein:
 - said instance-entities might correspond to objects, concepts, events, characteristics, ideas or other entity type belonging to any realm of reality,
 - the purpose of said category-entities is to create different classes to which said instance-entities can be assigned,
 - 15 – the purpose of said criterion-entities is to create different classification criteria, after which different category-entities can be created,

wherein said system can be of different types, such as for example one of the following ones:

 - an independent computerized system that comprises a screen and other means,
 - a computerized system that might not have a screen but which comprises
 - 20 telecommunication means for the user of the invention to connect with said system, in a way that in order for said user to establish said connection, said user might use a second computerized system that might have a screen,
 - a different type of system with different characteristics.

- 25 2. A system as claimed in claim 1, further comprising means for showing an arboreal structure that represents said tree, wherein there might exist different ways to implement said arboreal structure, wherein it is possible that all of the instance-entities, or only part of them, or none of them, appear in said arboreal structure, and where it happens that:
 - the instance-entities that appear in said arboreal structure could be represented as
 - 30 belonging to all the category-entities to which they belong or only to some of them,
 - in said arboreal structure, the criterion-entities and the category-entities could alternate, so that a criterion-entity could be the parent of a category-entity and vice versa, and a criterion-entity can be parent of other criterion-entities.

3. A system as claimed in claim 2, further comprising means for expanding and collapsing the nodes of said arboreal structure.
4. A system as claimed in claim 2, further comprising means for emphasizing the criterion-entities with respect to the rest of entities in said structure, wherein said means could be for example a special text, a special font type, a special font format, or other means.
5. A system as claimed in claim 2, further comprising means for showing a summary arboreal structure for the selections that are performed in the main arboreal structure.
6. A system as claimed in claim 2, wherein one of said different ways to implement said arboreal structure is an arboreal structure in which the category-entities that depend on a criterion-entity have an indentation level that is higher than the indentation level of said criterion entity.
7. A system as claimed in claim 2, wherein one of said different ways to implement said arboreal structure is an arboreal structure in which the category-entities that depend on a criterion-entity have the same level of indentation as said criterion-entity, and said system might optionally comprise means for hiding said category-entities without hiding said criterion-entity.
8. A system as claimed in claim 2, further comprising means for modifying said tree—such as for example for adding or removing entities—without requiring to modify the number of controls that exist in the graphical interface in which said arboreal structure is shown, so that the only modification that is necessary to make is to modify the set of nodes that exist in said arboreal structure.
9. A system as claimed in claim 2, further comprising means for categorizing instance-entities in such as way that the user adds an instance-entity in different positions of said arboreal structure and said system creates a classification for said instance-entity that reflects the category-entities that appear as parent node of said instance-entity.
10. A system as claimed in claim 1, further comprising means for modifying said tree— such as for example for adding or removing entities—without requiring to modify the computer

system that manages said tree, so that the only modification that must be made is modifying the number of records that exist in the databases where the entities are stored.

11. A system as claimed in claim 1, further comprising means for identifying the criterion-entities that are complete, incomplete and neutral, so that the user can assess whether there exist too many selected category-entities or too few, in order to make a correct categorization of one or more instance-entities.
12. A system as claimed in claim 1, further comprising means for performing searches on instance-entities, so that the search strings are built after one or more category-entities or instance-entities that might have been selected.
13. A system as claimed in claim 1, further comprising means for classifying instance-entities by using certain classification strings, wherein:
 - said classification strings are character strings,
 - said classification strings are characterized by being a concatenation of the codes assigned to said instance-entities, wherein said codes can be of several types, such as for example,
 - ~ codes of the category-entities to which each instance-entity is assigned,
 - ~ codes of the criterion-entities to which said category-entities belong,
 - ~ other types of codes,
 - said classification strings comprise certain separating characters that allow to distinguish where each of the codes starts and ends, with the purpose of eliminating the ambiguity created by the same characters existing in different codes,and wherein there exist means for storing said classification strings in a database, so that they can be stored in a single field or in several fields in a disaggregated fashion, and wherein said database can be a relational database or other type of database.
14. A system as claimed in claim 11, further comprising means for searching instance-entities by using said classification strings, wherein said search is based on finding the instances in whose classification strings there exist certain sets of characters, for which said means can use mechanisms such as the expression “LIKE” of SQL (Structured Query Language) or other similar mechanisms.

15. A computerized method for classifying entities of different types, comprising the following steps:

- adding category-entities and criterion-entities to the classification and, optionally, also adding instance-entities, wherein
 - 5 ~ said instance-entities might correspond to objects, concepts, events, characteristics, ideas or other entity type belonging to any realm of reality,
 - ~ the purpose of said category-entities is to create different classes to which said instance-entities can be assigned,
 - ~ the purpose of said criterion-entities is to create different classification criteria, after
 - 10 which different category-entities can be created,
- organizing some or all of said entities in a tree, with parent-child relationships, so that said entities correspond to the nodes of said tree, where it is not necessary that a graphical representation of said tree exists,

wherein said method is based on a computerized system that can be of different types, such as for example one of the following ones:

- an independent computerized method that comprises a screen and other means,
- a computerized method that might not have a screen but which comprises telecommunication means for the user of the invention to connect with said method, in a way that in order for said user to establish said connection, said user might use a second
 - 20 computerized method that might have a screen,
- a different type of method with different characteristics.

16. A method as claimed in claim 15, further comprising the step of showing an arboreal structure that represents said tree, wherein there might exist different ways to implement said arboreal structure, wherein it is possible that all of the instance-entities, or only part of them, or none of them, appear in said arboreal structure, and where it happens that:

- the instance-entities that appear in said arboreal structure could be represented as belonging to all the category-entities to which they belong or only to some of them,
- in said arboreal structure, the criterion-entities and the category-entities could alternate,
 - 30 so that a criterion-entity could be the parent of a category-entity and vice versa, and a criterion-entity can be parent of other criterion-entities.

17. A method as claimed in claim 16, further comprising the step of expanding and collapsing the nodes of said arboreal structure.

18. A method as claimed in claim 16, further comprising the step of emphasizing the criterion-entities with respect to the rest of entities in said structure by the utilization of some means, wherein said means could be for example a special text, a special font type, a special font format, or other means.
- 5
19. A method as claimed in claim 16, further comprising the step of showing a summary arboreal structure for the selections that are performed in the main arboreal structure.
20. A method as claimed in claim 16, wherein one of said different ways to implement said
10 arboreal structure is an arboreal structure in which the category-entities that depend on a criterion-entity have an indentation level that is higher than the indentation level of said criterion entity.
21. A method as claimed in claim 16, wherein one of said different ways to implement said
15 arboreal structure is an arboreal structure in which the category-entities that depend on a criterion-entity have the same level of indentation as said criterion-entity, and said method might optionally comprise the step of hiding said category-entities without hiding said criterion-entity.
- 20 22. A method as claimed in claim 16, further comprising the step of modifying said tree—such as for example for adding or removing entities—without requiring to modify the number of controls that exist in the graphical interface in which said arboreal structure is shown, so that the only modification that is necessary to make is to modify the set of nodes that exist in said arboreal structure.
- 25
23. A method as claimed in claim 16, further comprising the step of categorizing instance-entities in such as way that the user adds an instance-entity in different positions of said arboreal structure and said system creates a classification for said instance-entity that reflects the category-entities that appear as parent node of said instance-entity.
- 30
24. A method as claimed in claim 15, further comprising the step of modifying said tree— such as for example for adding or removing entities—without requiring to modify the computer method that manages said tree, so that the only modification that must be made is modifying the number of records that exist in the databases where the entities are stored.
- 35

25. A method as claimed in claim 15, further comprising the step of categorizing instance-entities, where said step comprises the following substeps:
- said classification strings are character strings,
 - automatically identifying the criterion-entities that are complete, incomplete and neutral,
5 so that the user can assess whether there exist too many selected category-entities or too few.
26. A method as claimed in claim 15, further comprising the step of performing searches on instance-entities, so that the search strings are built after one or more category-entities or
10 instance-entities that might have been selected.
27. A method as claimed in claim 15, further comprising the step of classifying instance-entities by using certain classification strings, wherein:
- said classification strings are character strings,
 - 15 – said classification strings are characterized by being a concatenation of the codes assigned to said instance-entities, wherein said codes can be of several types, such as for example,
 - ~ codes of the category-entities to which each instance-entity is assigned,
 - ~ codes of the criterion-entities to which said category-entities belong,
 - ~ other types of codes,
 - 20 – said classification strings comprise certain separating characters that allow to distinguish where each of the codes starts and ends, with the purpose of eliminating the ambiguity created by the same characters existing in different codes,
- and wherein said classification strings might be stored in a database, so that they can be stored in a single field or in several fields in a disaggregated fashion, and wherein said
25 database can be a relational database or other type of database.
28. A method as claimed in claim 27, further comprising the step of searching instance-entities by using said classification strings, wherein said search is based on finding the instances in whose classification strings there exist certain sets of characters, for which said means can
30 use mechanisms such as the expression “LIKE” of SQL (Structured Query Language) or other similar mechanisms.

29. A computer program characterized by the fact that it allows to build the system described in one or more of claims 1 to 14.
30. A computer program characterized by the fact that it allows to execute the method described
5 in one or more of claims 15 to 28.
31. An object that is readable by some means and which is characterized by the fact that it contains one or more of the programs mentioned in claims 29 to 30.